

**EXP12180 Series--Small-size batteries**

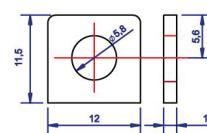
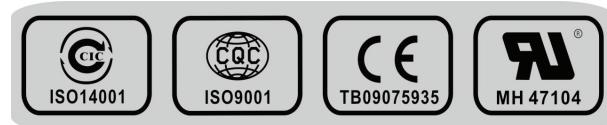
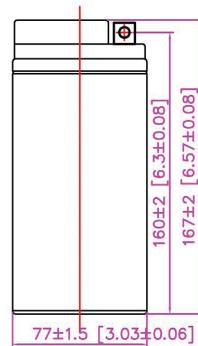
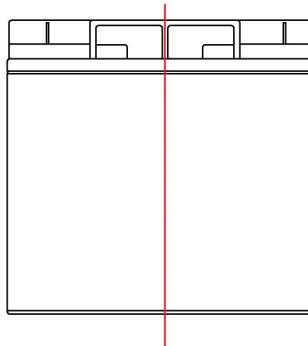
- 100% before shipment testing, stable and reliable long-term quality
- patented grid alloy formula and updated manufacturing technique
- completely sealed and maintenance-free, low self-discharge
- Excellent charging and re-charging acceptance
- Cycle use: More than 260 cycles at 100% DOD
- Floating & standby use: 3-5 years

**Application:**

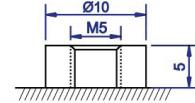
- |                           |                     |
|---------------------------|---------------------|
| ● Alarm System            | ● Medical Equipment |
| ● Cable Television        | ● UPS               |
| ● Communication Equipment | ● Power tools       |
| ● Emergency Power System  | ● Control Equipment |
| ● Security System         | ● Toys              |

**Construction:**

- |                               |                                  |
|-------------------------------|----------------------------------|
| ● Component .....Raw material | ● Sealant .....Epoxy             |
| ● Positive .....Lead dioxide  | ● Safety valve .... Rubber       |
| ● Negative .....Lead          | ● Terminal .....Copper           |
| ● Container .....ABS          | ● Separator .....Fiber glass     |
| ● Cover .....ABS              | ● Electrolyte .....Sulfuric acid |



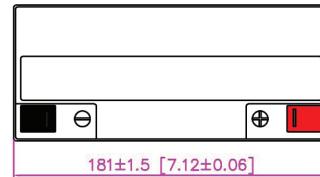
M5 Bolt &amp; Nut



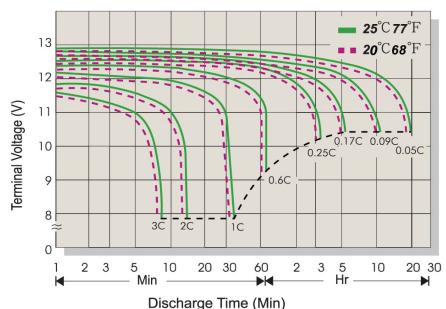
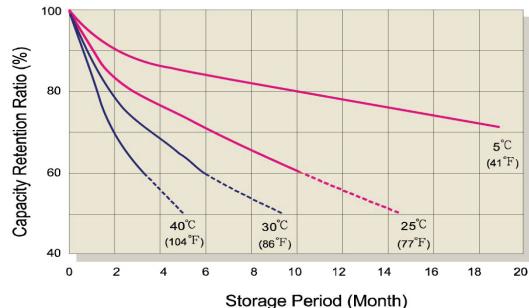
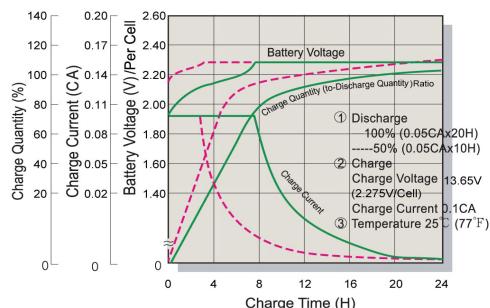
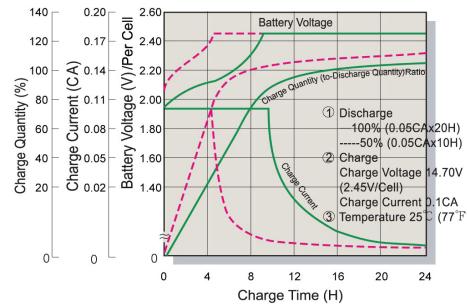
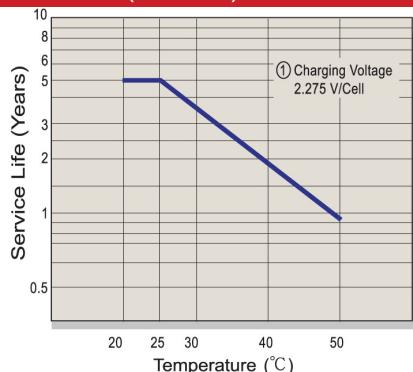
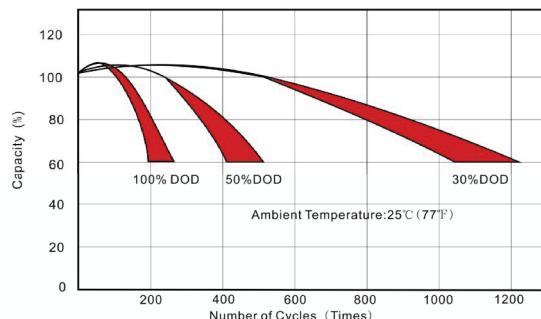
M5 Bolt

T1 Terminal

B1 Terminal


**Specification:**

Battery Model	EXP12180 12V18AH			
Designed Floating Life	3~5 Years			
Capacity (25°C)	20HR(0.90A,10.5V)	10HR(1.73A,10.5V)	5HR(3.24A,10.5V)	1HR(10.85A,10.5V)
	18.00AH	17.30AH	16.20AH	10.85AH
Dimensions	Length	Width	Height	Total Height
	181mm (7.12inch)	77mm (3.03inch)	160mm (6.30inch)	167mm (6.57inch)
Approx. Weight	5.30Kg (11.68 lbs) ±5%			
Internal Resistance	Full charged at 25°C : ≤12. 0mΩ			
Self Discharge	3% of capacity declined per month at (25°C)			
Capacity Affected by Temp.(20HR)	40°C	25°C	0°C	-15°C
	102%	100%	85%	65%
Charge Voltage(25oC)	Cycle use		Float use	
	14.4-15.0V(-30mV/°C), max. Current: 5.4A		13.5-13.8V (-20mV/°C)	

**Terminal Voltage (V) and Discharge Time**

**Capacity Retention Characteristic**

**Battery Voltage and Charge Time for Standby Use**

**Battery Voltage and Charge Time for Cycle Use**

**Tickle(or Float) Service Life**

**Cycle Service Life**

**Constant Current Discharge(CC,Unit:A) at 25°C(77°F)**

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.85V/Cell	59.18	34.94	28.46	17.90	10.45	6.04	4.64	3.808	3.120	2.544	1.668	0.867
1.80V/Cell	60.31	35.60	28.98	18.24	10.65	6.15	4.73	3.880	3.180	2.592	1.700	0.883
1.75V/Cell	61.44	36.27	30.51	18.58	10.85	6.27	4.81	3.953	3.239	2.641	1.732	0.900
1.70V/Cell	66.97	38.45	32.22	19.32	11.04	6.38	4.90	4.023	3.296	2.687	1.762	0.916
1.67V/Cell	73.73	41.71	34.78	20.40	11.15	6.45	4.95	4.066	3.332	2.716	1.781	0.926
1.60V/Cell	79.87	43.89	35.90	21.28	11.27	6.52	5.00	4.110	3.368	2.745	1.800	0.936

**Constant Power Discharge (CP,Unit:W) at 25°C(77°F)**

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.85V/Cell	115.40	68.12	53.54	34.90	20.37	11.77	9.04	7.43	6.08	4.96	3.25	1.69
1.80V/Cell	117.61	69.43	54.57	35.57	20.76	12.00	9.21	7.57	6.20	5.05	3.31	1.72
1.75V/Cell	119.81	70.73	55.59	36.24	21.15	12.22	9.39	7.71	6.32	5.15	3.38	1.76
1.70V/Cell	130.59	74.97	58.92	37.68	21.52	12.44	9.55	7.84	6.43	5.24	3.44	1.79
1.67V/Cell	143.77	81.34	63.93	39.79	21.75	12.57	9.66	7.93	6.50	5.30	3.47	1.81
1.60V/Cell	155.76	85.58	67.26	41.49	21.99	12.71	9.76	8.01	6.57	5.35	3.51	1.82